

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-88. (Cancelled).

89. (Currently Amended) A method of treating an immunodeficiency comprising administering to an individual, a therapeutically effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide protein having said amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2~~modulates lymphocyte proliferation, differentiation, or survival.~~

90. (Previously Presented) The method of claim 89 wherein the protein comprises amino acid sequence (a).

91. (Previously Presented) The method of claim 89 wherein the protein comprises amino acid sequence (b).

92. (Previously Presented) The method of claim 89 wherein the protein comprises amino acid sequence (c).

93. (Previously Presented) The method of claim 89 wherein the protein also comprises a heterologous amino acid sequence.

94. (Previously Presented) The method of claim 93 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

95. (Previously Presented) The method of claim 89 wherein said protein is labeled.

96-97. (Cancelled)

98. (Currently Amended) A method of treating an immunodeficiency comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide protein having said first amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2 modulates lymphocyte proliferation, differentiation, or survival.

99. (Previously Presented) The method of claim 98 wherein the protein comprises amino acid sequence (a).

100. (Previously Presented) The method of claim 98 wherein the protein comprises amino acid sequence (b).

101. (Previously Presented) The method of claim 98 wherein the protein comprises amino acid sequence (c).

15 128. (Previously Presented) The method of claim 126 wherein the protein is fused to a heterologous amino acid sequence.

16 129. (Previously Presented) The method of claim 128 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

17 130. (Previously Presented) The method of claim 126 wherein said protein is labeled.

131-132. (Cancelled)

18 133. (Previously Presented) The method of claim 126 wherein the immunodeficiency is common variable immunodeficiency (CVID).

134. (Cancelled)

19 135. (Previously Presented) The method of claim 126 wherein the immunodeficiency is Selective IgA deficiency.

136-139. (Cancelled)

20 140. (Currently Amended) A method of treating an immunodeficiency comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence which is 90% or more identical to a second amino acid sequence consisting of amino acid residues 134-285 of SEQ ID NO:2, wherein the polypeptide-protein having said first amino acid sequence modulates-stimulates B lymphocyte proliferation, differentiation, or survival.

21 141. (Previously Presented) The method of claim 140 wherein the protein comprises a first amino acid sequence which is 95% or more identical to said second amino acid sequence.

~~22~~ 142. (Previously Presented) The method of claim ~~140~~ ²⁰ wherein the protein also comprises a heterologous amino acid sequence.

~~23~~ 143. (Previously Presented) The method of claim ~~142~~ ²² wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

~~24~~ 144. (Previously Presented) The method of claim ~~140~~ ²⁰ wherein said protein is labeled.

145-146. (Cancelled)

~~25~~ 147. (Previously Presented) The method of claim ~~140~~ ²⁰ wherein the immunodeficiency is common variable immunodeficiency (CVID).

148. (Cancelled)

~~26~~ 149. (Previously Presented) The method of claim ~~140~~ ²⁰ wherein the immunodeficiency is Selective IgA deficiency.

150-211. (Cancelled)

212. (Currently Amended) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising administering to an individual, ~~a therapeutically an~~ effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

*see
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amendment*

- (a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;
- (b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and
- (c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

~~wherein the polypeptide protein having said amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2 modulates lymphocyte proliferation, differentiation, or survival.~~

*see
examiner's
amendment* 213. (Previously Presented) The method of claim 212 wherein the protein comprises amino acid sequence (a).

214. (Previously Presented) The method of claim 212 wherein the protein comprises amino acid sequence (b).

215. (Previously Presented) The method of claim 212 wherein the protein comprises amino acid sequence (c).

29 216. (Previously Presented) The method of claim *212* wherein the protein also comprises a heterologous amino acid sequence. *27*

30 217. (Previously Presented) The method of claim *216* wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain. *29*

31 218. (Previously Presented) The method of claim *212* wherein said protein is labeled. *27*

219-220. (Cancelled)

221. (Currently Amended) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising administering to an individual, a therapeutically an effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

*see
examiner's
amendment*

- (a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;
- (b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

see examiner's amendment
~~wherein the polypeptide protein having said first amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2 modulates lymphocyte proliferation, differentiation, or survival.~~

222. (Previously Presented) The method of claim 221 wherein the protein comprises amino acid sequence (a).

223. (Previously Presented) The method of claim 221 wherein the protein comprises amino acid sequence (b).

224. (Previously Presented) The method of claim 221 wherein the protein comprises amino acid sequence (c).

~~34~~ 225. (Previously Presented) The method of claim ~~221~~ ³² wherein the protein also comprises a heterologous amino acid sequence.

~~35~~ 226. (Previously Presented) The method of claim ~~225~~ ³⁴ wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

~~36~~ 227. (Previously Presented) The method of claim ~~221~~ ³² wherein said protein is labeled.

228-229. (Cancelled)

see examiner's amendment
~~230. (Currently Amended) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising administering to an individual, a therapeutically effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.~~

38 *231.* (Previously Presented) The method of claim *230* wherein the protein is fused to a heterologous amino acid sequence. *37*

39 *232.* (Previously Presented) The method of claim *231* wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain. *38*

40 *233.* (Previously Presented) The method of claim *230* wherein said protein is labeled. *37*

234-274. (Cancelled)

275. (Previously Presented) The method of claim 89 wherein the immunodeficiency is common variable immunodeficiency (CVID).

276. (Previously Presented) The method of claim 89 wherein the immunodeficiency is Selective IgA deficiency.

277. (Previously Presented) The method of claim 98 wherein the immunodeficiency is common variable immunodeficiency (CVID).

278. (Previously Presented) The method of claim 98 wherein the immunodeficiency is Selective IgA deficiency.

5 *279.* (Previously Presented) The method of claim *107* wherein the immunodeficiency is common variable immunodeficiency (CVID).

6 *280.* (Previously Presented) The method of claim *107* wherein the immunodeficiency is Selective IgA deficiency.

41 *281.* (New) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising administering to an individual, an effective amount of a protein comprising the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

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42 282. (New) The method of claim 281 wherein the protein is fused to a heterologous amino acid sequence.

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43 283. (New) The method of claim 282 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

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44 284. (New) The method of claim 281 wherein said protein is labeled.

285. (New) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising contacting B lymphocytes with an effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

see examiner's amendment
(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the protein having said amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2.

see examiner's amendment
286. (New) The method of claim 285 wherein the protein comprises amino acid sequence (a).

287. (New) The method of claim 285 wherein the protein comprises amino acid sequence (b).

288. (New) The method of claim 285 wherein the protein comprises amino acid sequence (c).

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47 289. (New) The method of claim 285 wherein the protein also comprises a heterologous amino acid sequence.

⁴⁷
48 290. (New) The method of claim ~~289~~ wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

⁴⁵
49 291. (New) The method of claim ~~285~~ wherein said protein is labeled.

292. (New) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising contacting B lymphocytes with an effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

*see
Xaminer's
mendment*
(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the protein having said first amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2.

*see
Xaminer's
mendment*
293. (New) The method of claim 292 wherein the protein comprises amino acid sequence (a).

294. (New) The method of claim 292 wherein the protein comprises amino acid sequence (b).

295. (New) The method of claim 292 wherein the protein comprises amino acid sequence (c).

52 296. (New) The method of claim ⁵⁰ ~~292~~ wherein the protein also comprises a heterologous amino acid sequence.

53 297. (New) The method of claim ⁵² ~~296~~ wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

54 298. (New) The method of claim 292 wherein said protein is labeled.

55 299. (New) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising contacting B lymphocytes with an effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

56 300. (New) The method of claim 299 wherein the protein is fused to a heterologous amino acid sequence.

57 301. (New) The method of claim 300 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

58 302. (New) The method of claim 299 wherein said protein is labeled.

59 303. (New) A method of stimulating B lymphocyte proliferation, differentiation or survival comprising contacting B lymphocytes with an effective amount of a protein comprising the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

60 304. (New) The method of claim 303 wherein the protein is fused to a heterologous amino acid sequence.

61 305. (New) The method of claim 304 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

62 306. (New) The method of claim 303 wherein said protein is labeled.

307. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising administering to an individual, an effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

*see
examiner's
amendment*

(c) the amino acid sequence of amino acid residues n to m of SEQ ID

NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the protein having said amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2.

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308. (New) The method of claim 307 wherein the protein comprises amino acid sequence (a).

309. (New) The method of claim 307 wherein the protein comprises amino acid sequence (b).

310. (New) The method of claim 307 wherein the protein comprises amino acid sequence (c).

65 311. (New) The method of claim 307 wherein the protein also comprises a heterologous amino acid sequence.

66 312. (New) The method of claim 311 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

67 313. (New) The method of claim 307 wherein said protein is labeled.

314. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising administering to an individual, an effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

See Examiner's amendment

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the protein having said first amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2.

315. (New) The method of claim 314 wherein the protein comprises amino acid sequence (a).

316. (New) The method of claim 314 wherein the protein comprises amino acid sequence (b).

317. (New) The method of claim 314 wherein the protein comprises amino acid sequence (c).

70 318. (New) The method of claim 314 wherein the protein also comprises a heterologous amino acid sequence.

71 319. (New) The method of claim 318 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

72 320. (New) The method of claim 314 wherein said protein is labeled.

73 321. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising administering to an individual, an effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

74 322. (New) The method of claim 321 wherein the protein is fused to a heterologous amino acid sequence.

75 323. (New) The method of claim 322 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

see examiner's amendment 76 324. (New) The method of claim 321 wherein said protein is labeled.

77 325. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising administering to an individual, an effective amount of a protein comprising the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

78 326. (New) The method of claim 325 wherein the protein is fused to a heterologous amino acid sequence.

79 327. (New) The method of claim 326 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

see examiner's amendment 328. (New) The method of claim 327 wherein said protein is labeled.

329. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising contacting T lymphocytes with an effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

see examiner's amendment wherein the protein having said amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2.

330. (New) The method of claim 329 wherein the protein comprises amino acid sequence (a).

331. (New) The method of claim 329 wherein the protein comprises amino acid sequence (b).

332. (New) The method of claim 329 wherein the protein comprises amino acid sequence (c).

~~83~~ 333. (New) The method of claim 329 wherein the protein also comprises a heterologous amino acid sequence.

~~84~~ 334. (New) The method of claim 333 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

~~85~~ 335. (New) The method of claim 329 wherein said protein is labeled.

336. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising contacting T lymphocytes with an effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274-284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the protein having said first amino acid sequence can be used to generate or select for an antibody that specifically binds the polypeptide of SEQ ID NO:2.

337. (New) The method of claim 336 wherein the protein comprises amino acid sequence (a).

338. (New) The method of claim 336 wherein the protein comprises amino acid sequence (b).

339. (New) The method of claim 336 wherein the protein comprises amino acid sequence (c).

88 340. (New) The method of claim 336 wherein the protein also comprises a heterologous amino acid sequence.

89 341. (New) The method of claim 340 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

90 342. (New) The method of claim 336 wherein said protein is labeled.

91 343. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising contacting T lymphocytes with an effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

92 344. (New) The method of claim 343 wherein the protein is fused to a heterologous amino acid sequence.

93 345. (New) The method of claim 344 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

94 346. (New) The method of claim 343 wherein said protein is labeled.

95 347. (New) A method of stimulating T lymphocyte proliferation or differentiation comprising contacting T lymphocytes with an effective amount of a protein comprising the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

96 348. (New) The method of claim 347 wherein the protein is fused to a heterologous amino acid sequence.

97 349. (New) The method of claim 348 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

98 350. (New) The method of claim 347 wherein said protein is labeled.